P8Z68 DELUXE

Your dream Z68 motherboard, with full support for faster video transcoding and universal switchable graphics.

- Dual Intelligent Processors 2 with DIGI+ VRM
- BT GO! (Bluetooth) - Diverse BT Enjoyment, New Technology Lifestyle
- UEFI BIOS (EZ Mode) - Flexible & Easy BIOS Interface
- Quad USB 3.0/SATA 6Gb/s Support - Double Access, Double Convenience
- Quad-GPU SLI and Quad-GPU CrossFireX Support!

P8Z68 Series Highlights

UEFI BIOS (EZ Mode)

Flexible & Easy BIOS Interface

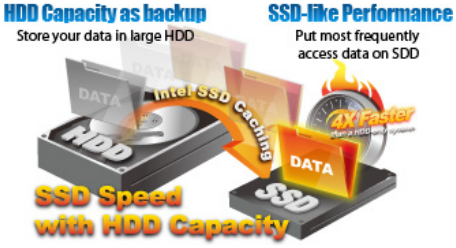
ASUS UEFI BIOS offers a user-friendly interface that goes beyond traditional keyboard-only BIOS controls to enable more flexible and convenient mouse input. Users can easily navigate the UEFI BIOS with the smoothness of their operating system. Quick and simple overclocking and setup sharing is facilitated by the F12 hotkey BIOS snapshot feature. The exclusive EZ Mode displays frequently-accessed setup info, while the Advanced Mode is for experienced performance enthusiasts that demand far more intricate system control, including detailed DRAM information.

Supports Hard Drives over 2.2TB

ASUS UEFI BIOS natively supports hard drives larger than 2.2TB in 64-bit, with full storage space utilization helping deliver far more exciting computing than traditional BIOS versions.

Exclusive ASUS Interface

- **EZ Mode** - easy to learn, use, and manage
- **Advanced Mode** - for experienced performance enthusiasts that demand intricate system settings



Intel® Smart Response Technology

Faster Access, Bigger Storage Intel® Smart Response Technology boosts overall system performance. It uses an installed fast SSD (min 18.6GB available) as a cache for frequently accessed operations, speeding up hard drive/main memory interaction. Key benefits are expedited hard drive speeds, reduced load and wait times and maximized storage utilization. Power consumption also goes down by reducing unnecessary hard drive spin, an important part of Green ASUS eco-friendly computing.

LucidLogix® Virtu

Perfect Fit for Graphics and Multimedia

LucidLogix® Virtu is designed for the Intel® Sandy Bridge platform's powerful integrated graphics. Its GPU virtualization dynamically assigns tasks to the best

available graphics resources based on power, performance and system load on Windows® 7 based PCs. It allows users to fully utilize the unique capabilities of advanced Sandy Bridge multimedia features alongside the high end 3D rendering performance provided by installed graphics cards. When no discrete graphics are needed, the graphics card is put in idle mode to lower utilization, heat, fan speed and power draw down to near zero, making the system more environmentally-friendly. For users with diverse needs, LucidLogix® Virtu GPU virtualization provides great flexibility and efficiency.

Dual Intelligent Processors 2 with DIGI+ VRM

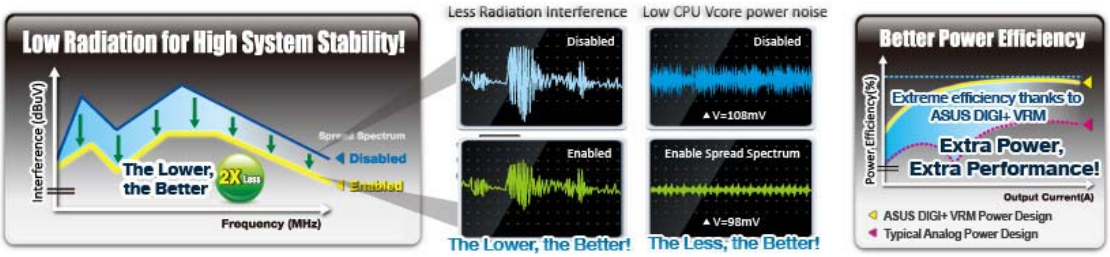
Digital Power Design: The New Standard

The world's first Dual Intelligent Processors from ASUS pioneered the use of two onboard chips - EPU (Energy Processing Unit) and TPU (TurboV Processing Unit). The new generation of Dual Intelligent Processors 2 with DIGI+ VRM provides precise Vcore PWM, integrated graphics voltages and frequency module adjustments with minimal power loss through BIOS tuning and an exclusive user interface to increase the board's overclocking range while performance reaches its full potential. ASUS DIGI+ VRM digital power design empowers users with superior flexibility and perfect precision to ensure optimized performance, extreme system stability and greater power efficiency.

DIGI+ VRM

Herald the Arrival of a New Digital Power Design Era

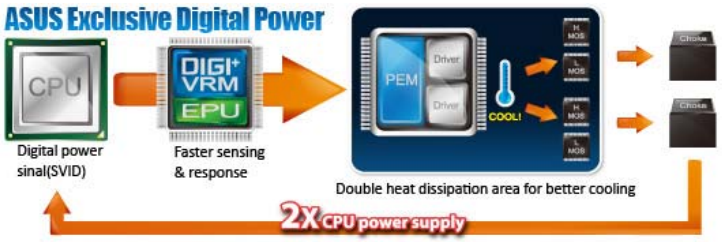
VRM, or voltage regulator modules, are considered among the most essential motherboard design components. They supply the voltage demanded by the CPU, and a good VRM must intelligently detect actual CPU power draw to provide precise power accordingly. ASUS DIGI+ VRM is an innovative, industry-leading technology that fully integrates Intel® VRD12 specifications on a native level, greatly enhancing power to go far beyond the limits of analog designs.



Advantages of ASUS DIGI+ VRM Digital Power Design

Unlike previous VRD versions, Intel® VRD12 uses digital signals (SVID). To ensure perfect power delivery, ASUS specially designed DIGI+ VRM to sync completely with this new technology.

- **Faster sensing and response:** ASUS DIGI+ VRM acts as a digital controller to perfectly match digital power signal (SVID) requests from the CPU, eliminating digital-to-analog conversion lag.
- **Better cooling:** exclusive dual driver and MOS design doubles the heat dissipation area with expanded cooling surfaces for improved thermal performance. Spacing components out over a wider area speeds up cooling to enhance reliability and stability.
- **2X CPU power supply:** the same exclusive dual driver and MOS design also provides twice the CPU power supply with two complete power stages. This results in far greater phase load tolerances, so the CPU never has to wait for power to arrive, increasing performance and overclocking potential.



Active Cooling for Extreme Durability- Super Cool VRM

ASUS DIGI+ VRM delivers intelligent power management to balance loadings for each power phase by detecting VRM temperatures to ensure longer component lifespan and better cooling.

TPU

The Ultimate Turbo Processor

Unleash your performance with ASUS' simple onboard switch or AI Suite II utility. The TPU chip offers precise voltage control and advanced monitoring through Auto Tuning and TurboV functions. Auto Tuning offers a user friendly

EPU

Energy Efficiency All Around

Tap into the world's first real-time PC power saving chip through a simple onboard switch or AI Suite II utility. Get total system-wide energy optimization by automatically detecting current PC loadings and intelligently moderating power

way to automatically optimize the system for fast, yet stable clock speeds, while TurboV enables unlimited freedom to adjust CPU frequencies and ratios for optimized performance in diverse situations.

consumption. This also reduces fan noise and extends component longevity!

ASUS Exclusive Features

BT GO!

Diverse BT Enjoyment, New Technology Lifestyle

Onboard Bluetooth wireless design enables smart connectivity to Bluetooth devices with no additional adapter. ASUS BT GO! comes with 7 special functions that offer a significant breakthrough in Bluetooth evolution, including Folder Sync, BT Transfer, BT Turbo Remote, BT-to-Net, Music Player, Shot and Send, and Personal Manager. All are accessible through the exclusive, user-friendly ASUS interface.

* The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by ASUSTeK Computer Inc. is under license. Other trademarks and trade names are those of their respective owners

Latest Transfer Technology

Complete USB 3.0 Integration

Double USB Access, Double Convenience

ASUS facilitates strategic USB 3.0 accessibility for both the front and rear panels - 4 USB 3.0 ports in total. Experience the latest plug & play connectivity at speeds up to 10 times faster than USB 2.0. The P8Z68 DELUXE affords greater convenience with high speed connectivity.

ASUS Front Panel USB 3.0 Box

Convenient USB 3.0 Front Panel Compatibility

ASUS provides standardized USB 3.0 front panel support, compatible with any chassis. Enjoy the faster throughput of USB 3.0 without relegating cables and devices to the hard-to-reach rear I/O.

Industry Standard

Dual Gigabit LAN Support (with One Intel LAN)

P8Z68 DELUXE features dual Gigabit LAN design which complies with 802.3az Energy Efficient Ethernet (EEE) standard and allows a PC to serve as a network gateway for managing traffic between two separate networks. Moreover, this motherboard also implements one Intel® Gigabit LAN controller which reduces power consumption during normal operation and enhances faster transfer speed through dual interconnection between the Integrated LAN controller and Physical Layer (PHY).

ASUS Crystal Sound

DTS

DTS Surround Sensation UltraPC

DTS Surround Sensation UltraPC delivers exceptional 5.1 surround experience through the most common PC audio setups - your existing stereo speakers or headphones. In addition to virtual surround, “Bass enhancement” provides stronger low frequency bass sound, and “Voice clarification” provides clear human dialogue even with loud background sound. With these technologies, you may experience a better home-theater audio with ease.

CPU, Chipset and Graphics features

LGA1155 socket for Intel® Second Generation Core™ i7/ Core™ i5/ Core™ i3 Processors

This motherboard supports the latest Intel® second generation Core™ i7/Core™ i5/Core™ i3 processors in the LGA1155 package, with memory and PCI Express controllers integrated to support 2-channel (4 DIMM) DDR3 memory and 16 PCI Express 2.0 lanes. This provides great graphics performance. Intel® second generation Core™ i7/Core™ i5/Core™ i3 processors are among the most powerful and energy efficient CPUs in the world.

Intel® Z68 Express Chipset

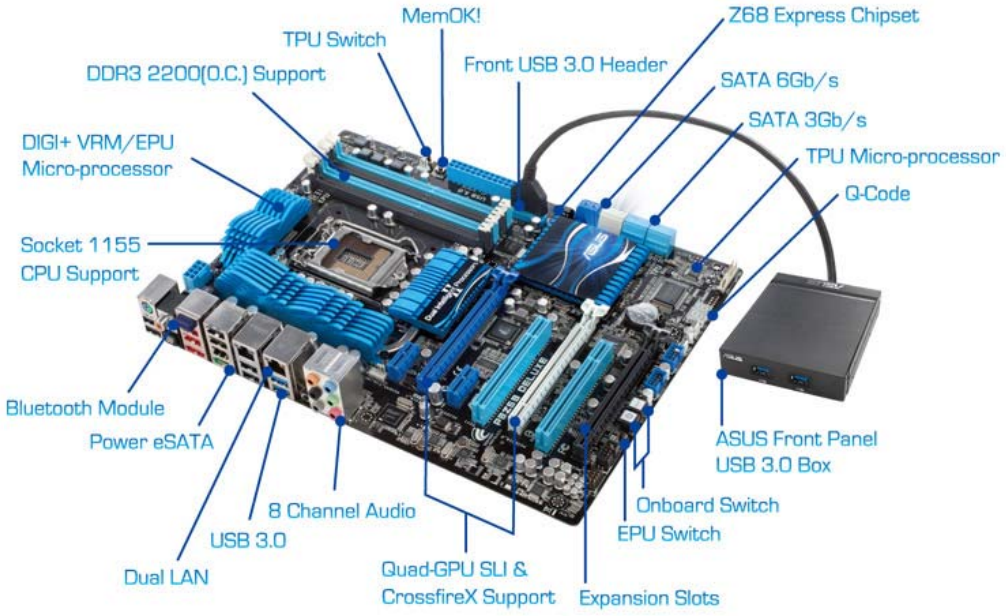
The Intel® Z68 Express Chipset is a single-chipset design to support socket 1155 Intel® second generation Core™ i7/Core™ i5/Core™ i3 processors. It provides improved performance by utilizing serial point-to-point links, allowing increased bandwidth and stability. Additionally, Z68 chipset provides 2 SATA 6Gb/s and 4 SATA 3Gb/s ports for faster data retrieval at double the bandwidth of current bus systems. Moreover, Intel® Z68 Express Chipset also supports iGPU function, letting users enjoy the latest Intel integrated graphic performance.

RoHS

GreenASUS and ErP Ready

The motherboard is European Union´s Energy-related Products (ErP) ready, and ErP requires products to meet certain energy efficiency requirements in regards to energy consumptions. This is in line with ASUS vision of creating environment-friendly and energy-efficient products through product design and innovation to reduce carbon footprint of the product and thus mitigate environmental impacts.

P8Z68 DELUXE Product Overview



Other ASUS Features

Auto Tuning

Achieve extreme yet stable overclocking results automatically

TurboV

Adjust system performance parameters with just a few clicks away

Extra SATA 6Gb/s

Extra Ports, Extra Speed and Accessibility

Power eSATA on the Go

Without the need of additional power source, easily backup photos and videos on external devices.

100% Japan-made Solid Cap

Onboard Switch

Stylish Heat-pipe Design

Stylish heat-pipe features 0-dB thermal solution that offers a noiseless PC environment.

Q-Design

ASUS Q-Design enhances your DIY experience!

Specifications

CPU	Intel® Socket 1155 The 2nd Generation Core™ i7/Core™ i5/Core™ i3 Processors Supports Intel® 32 nm CPU Supports Intel® Turbo Boost Technology 2.0 * The Intel® Turbo Boost Technology 2.0 support depends on the CPU types. * Refer to www.asus.com for CPU support list
Chipset	Intel® Z68
Memory	4 x DIMM, Max. 32GB, DDR3 2200(O.C.)/2133(O.C.)/1866(O.C.)/1600/1333/1066 Hz Non-ECC, Un-buffered Memory Dual Channel Memory Architecture Supports Intel® Extreme Memory Profile (XMP) * Hyper DIMM support is subject to the physical characteristics of individual CPUs. * Refer to www.asus.com or user manual for the Memory QVL (Qualified Vendors Lists). * Due to CPU behavior, DDR3 2200/2000/1800 MHz memory module will run at DDR3 2133/1866/1600 MHz frequency as default.
Multi-GPU Support	Supports NVIDIA® Quad-GPU SLI™ Technology Supports AMD® Quad-GPU CrossFireX™ Technology
Expansion Slots	2 x PCIe 2.0 x16 (x16 or dual x8) 1 x PCIe 2.0 x16 (x4 mode, black) *1 2 x PCIe 2.0 x1 2 x PCI
Storage	**Intel® Z68 chipset :** 2 x SATA 6Gb/s port(s), gray 4 x SATA 3Gb/s port(s), blue Support Raid 0, 1, 5, 10 Support Intel® Smart Response Technology **Marvell® PCIe 9128 controller :** 2 x SATA 6Gb/s port(s), navy blue **JMicron® JMB362 controller :** *2 1 x eSATA 3G port(s), red 1 x Power eSATA 3Gb/s port(s), green
LAN	Intel® 82579, 1 x Gigabit LAN Controller Realtek® 8111E , 1 x Gigabit LAN Controller Dual Gigabit LAN controllers- 802.3az Energy Efficient Ethernet (EEE) appliance Intel® LAN- Dual interconnect between the Integrated LAN controller and Physical Layer (PHY)
Bluetooth	Bluetooth V2.1+EDR ASUS BT GO! Utility
Audio	Realtek® ALC 889 8-Channel High Definition Audio CODEC - Supports : Jack-detection, Multi-streaming, Front Panel Jack-retasking **Audio Feature :** - Absolute Pitch 192kHz/ 24-bit True BD Lossless Sound - Blu-ray audio layer Content Protection - DTS Surround Sensation UltraPC - Coaxial and Optical S/PDIF out ports at back panel
IEEE 1394	VIA® 6315N controller 2 x IEEE 1394a port(s) (1 at mid-board, 1 at back panel)
USB Ports	**NEC® USB 3.0 controller :** 4 x USB 3.0 port(s) (2 at back panel, blue, 2 at mid-board) **Intel® Z68 chipset :** 12 x USB 2.0 port(s) (8 at back panel, , 4 at mid-board)
Overclocking Features	**Overclocking Protection :** - ASUS C.P.R.(CPU Parameter Recall)
Special Features	**ASUS Dual Intelligent Processors 2 with DIGI+ VRM:** ASUS EPU - EPU, EPU switch ASUS TPU - Auto Tuning, TurboV, TPU switch **ASUS Digital Power Design** - Industry leading Digital 16-Phase Power Design (12-phase for CPU, 4-phase for iGPU) - ASUS DIGI+ VRM Utility **ASUS BT GO! (Bluetooth)** - Folder Sync, BT Transfer, Shot & Send, BT to Net, Music Player, Personal Manager, BT Turbo Remote **ASUS Exclusive Features** - MemOK! - AI Suite II - AI Charger - Anti Surge - ASUS EFI BIOS EZ Mode featuring friendly graphics user interface **ASUS Quiet Thermal Solution** - ASUS Fanless Design: Heat-pipe solution - ASUS Fan Xpert **ASUS EZ DIY**

	- ASUS Q-Shield - ASUS Q-Connector - ASUS O.C. Tuner - ASUS CrashFree BIOS 3 - ASUS EZ Flash 2 **ASUS Q-Design** - ASUS Q-Code - ASUS Q-LED (CPU, DRAM, VGA, Boot Device LED) - ASUS Q-Slot - ASUS Q-DIMM
Back I/O Ports	1 x PS/2 keyboard/mouse combo port(s) 1 x Bluetooth module(s) 1 x eSATA 3Gb/s 1 x Power eSATA 3Gb/s 1 x IEEE 1394a 2 x LAN (RJ45) port(s) 2 x USB 3.0 8 x USB 2.0 1 x Coaxial S/PDIF out 1 x Optical S/PDIF out 6 x Audio Jack(s) 1 x Clear CMOS button(s)
Internal I/O Ports	1 x USB 3.0 connector(s) support(s) additional 2 USB 3.0 port(s) (19-pin, blue) 2 x USB 2.0 connector(s) support(s) additional 4 USB 2.0 port(s) 4 x SATA 6Gb/s connector(s) 4 x SATA 3Gb/s connector(s) 1 x IEEE 1394a connector(s) 1 x CPU Fan connector(s) (4 -pin) 2 x Chassis Fan connector(s) (1 x 4 -pin, 1 x 3 -pin) 2 x Power Fan connector(s) (2 x 3 -pin) 1 x S/PDIF out Header(s) 1 x 24-pin EATX Power connector(s) 1 x 8-pin ATX 12V Power connector(s) 1 x Front panel audio connector(s) (AAFP) 1 x System panel(s) (Q-Connector) 1 x MemOK! button(s) 1 x TPU switch(es) 1 x EPU switch(es) 1 x Power-on switch(es) 1 x Reset switch(es)
Accessories	User's manual ASUS Q-Shield 2 x Serial ATA 3.0Gb/s cable(s) 4 x Serial ATA 6.0Gb/s cable(s) 1 x SLI bridge(s) 1 x Q-connector(s) (2 in 1) 1 x ASUS Front Panel USB 3.0 Box(es)
BIOS	64 Mb Flash ROM, EFI AMI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.5, ACPI 2.0a, Multi-language BIOS, ASUS EZ Flash 2, ASUS CrashFree BIOS 3, F12 PrintScreen Function
Manageability	WfM 2.0, DMI 2.0, WOL by PME, WOR by PME, PXE
Support Disc	Drivers ASUS Utilities ASUS Update Anti-virus software (OEM version)
Form Factor	ATX Form Factor 12 inch x 9.6 inch (30.5 cm x 24.4 cm)
Note	*1: Compatible with PCIe x1 and x4 devices. *2: These SATA ports are for data hard drives only. ATAPI devices are not supported.